

## ABSTRACT

### HIGH MOMENT FILMS WITH SUB-MONOLAYER NANOLAMINATIONS RETAINING MAGNETIC ANISOTROPY AFTER HARD AXIS ANNEALING

- 5 A film structure and deposition method for creating laminated Fe-M-N and Fe-M-O-N  
films which retain good anisotropy after HA annealing are provided. Interleaved layers  
of thin alumina laminations between the Fe-M-[O]-N layers and sublayer alumina  
nanolaminations within the Fe-M-[O]-N layers create stable magnetic anisotropy in the  
film. The magnetic anisotropy in the film survives HA annealing at hardbake resist  
10 curing conditions in wafer manufacturing processes for GMR magnetic recording heads.